

## DIFFERED TAXES, FISCAL DISTORTIONS AND ECONOMIC GROWTH IN NIGERIA

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### ABSTRACT

Deferred taxes have consistently increased with fiscal reforms and increasing costs of non-current assets of listed firms in Nigeria, and further influenced the by declining exchange the naira to foreign currencies. Using deferred tax liability data of eight heavily industrialised firms in the manufacturing sector of the Nigerian economy, non-oil revenues accrued to the Federal government of Nigeria negatively affected by non-payment of taxes deferred in the immediate period, and Real GDP for the period 2008-2018 and analysed using the OLS and Error Correction Model (ECM), showed that taxes deferred by the eight firms within the study period amounted to N543.0247 billion which distorted the Federal Government's fiscal projections in the short-term but positively influenced real GDP (RGDP) both in the short and long-runs. The nil difference between government expenditure multiplier (KG) and investment multiplier (KI) both at 2.77 shows that the deferred taxes in the hands of firms or in the hands of the government as tax revenues has no differential effects between themselves but on RGDP with the effect on RGDP as deferred taxes in the hands of firms higher. Policies improving the size of deferred tax liabilities are beneficial to the Nigerian economy and should be sustained and improved upon.

**Key Words:** Budget disturbances, Deferred tax, Fiscal policy, Fiscal policy distortions, Fiscal projections

### INTRODUCTION

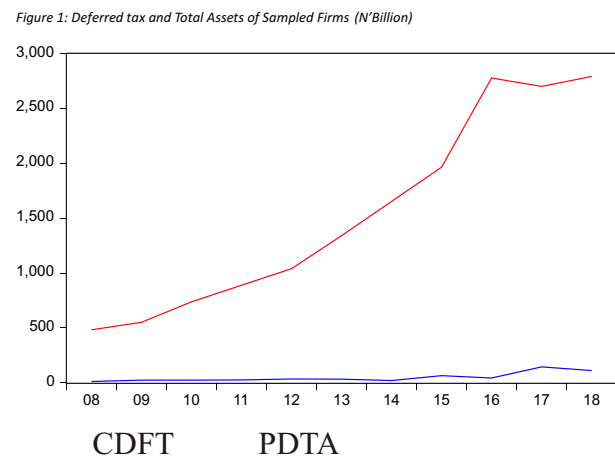
Deferred tax is an accounting measure employed to match tax effects of transactions with the accounting impact. Deferred tax may be an asset (positive) or a liability (negative). It is usually entered in a firm's Statement of Financial Position regarding overpayment or underpayment of tax liability. Deferred tax liabilities are identified for taxable temporary differences, and deferred tax assets for deductible temporary differences. The tax consequences of the future recovery or settlement of the carrying amount of assets or liabilities in a firm's Statement of Financial Position if the likely recovery or payment of that carrying amount will increase or decrease future tax payments than they would actually be had these payments occurred in the present period.

Deferred taxes arise from differences in the timing of recognition of items in a firm's financial statement and its recognition by the tax authorities

computed using the liabilities method of accounting for deferred taxes. The deferred tax is provided on all timing differences prevailing at the rates of the tax that will likely be in force at the date of reversal. Deferred tax assets are recognised as far as the future taxable profits will be available against which the asset will be utilised. These assets are usually written down to the extent that it is no longer likely that the tax benefit will be realised. Classification of deferred tax as non-current or current asset item depends on the classification of the asset or liability which gave rise to it. Deferred tax assets and liabilities are usually presented as current items if a temporary difference between taxable income and accounting income is recoverable within the next twelve months. Adjustments for deferred taxes are made at the year-end. This affects the income tax liability of the firm. Deferred taxes are shown in the operating cash flow segment of the Statement of Cash flows under the indirect method.

The value of deferred tax over the decades have been high, negatively affecting non-oil revenues receivable for execution of fiscal responsibilities. Research results by Poterba, Rao and Seidman (2007) from the study of 50 US corporations showed that 35.7% of the firms reported a net deferred tax amount valued at over 5% of the total assets. Findings by Haskins and Simko (2011) from the study of listed and S& P 500 firms separately showed that the mean value of net deferred tax liability was 5.11% and 5.82% for listed and S & P 500 firms respectively. The size of net deferred tax assets according to Haskins and Simko (2011) was 3.9% and 3.64% for listed and S & P 500 firms respectively. The data for Nigeria (Fig 1) shows that deferred tax liability ranged between 1.3% to 5.4% of total assets between 2008 and 2018 (with period average of 3.17%) for firms listed on the Nigerian Stock Exchange.

Figure : Deferred tax and Total Assets of Sampled Firms (N'Billion)



Deferred taxes (CDFT) of selected listed manufacturing firms in Nigeria increased steadily from N12.424 billion in 2008 to N145.8741 billion in 2017, declining to N111.0531 in 2018. Total assets (PDTA) similarly increased from N484.815 billion in 2008 to N2792.2 billion in 2018 (Fig 1). Percentage of Deferred tax liability to Total Assets fluctuated between 1.3% and 5.4% with a period average of 3.17% within this period. These deferred taxes (a fiscal policy initiative) distort fiscal inflows to the Federal Government

with effects on government revenues, government expenditures and economic performance.

Funds in the hands of government are invested in infrastructural development with expected positive spiral effects on a country's economic performance. Funds in the hands of the government can aid in developing discretionary fiscal activities. Issing (2005) opined that active fiscal consolidation coupled with discretionary fiscal policies is appropriate when budgeting positions are seen to be unsafe, and where fiscal sustainability risks are high due to future fiscal obligations and high debt. Afonso and Sousa (2011) and Issing (2005) argued that fiscal policy promotes macroeconomic stability by sustaining aggregate demand and private sector incomes. Experience in developed economies in the last decades shows that “persistent fiscal imbalances” inhibits the ability of fiscal policy to stabilise the economy and the policies are asymmetrical with expenditure increases especially during recession (Issing, 2005; Cooley and Hansen, 1992). Fiscal policy initiatives positively affecting deferred taxes decreases income inflows to the government and government expenditures. Likewise, fiscal policy initiatives with negative effects on the size of deferred taxes increases government revenues with positive effects on government spending and economic performances. Deferred taxes liabilities held by firms are invested with positive effects on production capacity expansion, employment, disposable income, consumption and economic growth. The differential effects of government spending and private sector investments depends on the difference between government and investment multipliers.

Leaving would-be current tax receipts in the hands of private firms now (deferred tax) seems a fiscal stimulus which are enhanced by government spending from hitherto deferred taxes received. Does leaving would-be current fiscal inflows to government in the hands of firms result in higher economic growth than such funds being in the hands of government for immediate direct spending in identified sectors of the Nigerian

economy with multiplier effects on economic growth? The thrust of this paper is to examine the behaviour of deferred taxes from 2008 to 2018 and ascertain its effect on fiscal policy implementations and economic growth within the study period.

#### Empirical and theoretical review

Fiscal policies according to Onifade, Cevik, Erdogan, Asongu and Bekun (2020) are government policies strategically designed to regulate or stabilise the economy through different forms of taxes and expenditures. Fiscal policies may be expansionary or contractionary with effects on aggregate demand. Increase in government spending and reduction in taxes (deferred tax policies inclusive) are expansionary, while reduction in government expenditures and increase in taxes (deferred tax policies inclusive) which negatively affect aggregate demand are contractionary. Jhingan (1997) posited that fiscal policies are aimed at ensuring that the economy attains long-run economic stability via adjustments in economic fluctuations in the short-run in a manner in which the government expends its resources to generate desirable outcomes while avoiding undesirable results. Onifade et. al. (2020) argued that the multiplier effect of government spending and increase in net income caused by reduction in taxes (deferred tax policies inclusive) helps stimulate spending with positive effects on economic growth. On the study of fiscal policy on long-run growth of European economies, Bleaney, Gemmell and Kneller (2001) showed mixed results of effects of individual taxes and expenditure heads on economic growth. Chude and Chude (2013) concluded from the study of Nigeria using the Error Correction Model (ECM) that total expenditure on economic is significant both in the short and long-runs. Ranking multipliers, Batini, Eyraud, Forni and Weber (2014) noted that private sector investments have a higher multiplier, followed by government expenditures and untargeted transfers. This conforms with defined existence of hierarchy of fiscal instruments as

posited by Coenen et. al (2012), European Commission (2010), and Forni, Monteforte and Sessa (2009). On the capacity of expenditures to spur economic expansions, Alesina and Ardagna (2010), Alesina and Perotti (1996), and Giavazzi and Pagano (1990) argued that this increases confidence in the economy, lower interest rates with a boost to private sector demand.

The neoclassical growth model by Solow (1956) posits that productive expenditures by government influence the incentive to invest in physical and human capital. Government expenditures depends on revenue inflows. On the effect of government revenues on economic growth, Ibrahim (2015) concluded that the causality test without break suggests that bi-directional causality analysis exists between government expenditure and revenue. The Friedman (1978) revenue-spend hypothesis, the Peacock and Wiseman (1979) spend-revenue hypothesis, and the Meltzer and Richards (1981) fiscal synchronization hypothesis which underlies this study explains government-expenditure behaviour patterns. Research results from the study of 22 OECD countries from 1961 to 1986 using the Vector Autocorrelation (VAR) model by Joulifaian and Morkerjee (1991) shows that the spend-revenue hypothesis holds for France, Finland, Austria, UK, Japan, US and Greece economies. Using the Error Correction Model (ECM) to analyse data from seven European countries covering the period 1961 to 1991, Owoye (1995) concluded that the fiscal synchronization holds for five of the seven countries while the revenue-spend hypothesis holds for Germany and Italy. Findings by Fasano and Wang (2002) from the study of oil-dependent countries using the Error Correction Model (ECM) shows that the revenue-spend hypothesis holds for Kuwait, Bahrain, Qatar, Oman, the United Arab Emirates and Saudi Arabia. Halkos and Paizanos (2015) showed evidences that government spending enhances long-run economic growth by increasing the level of Research and Development, and the level of human capital. Findings by Usman and Agbede (2015) showed that government

expenditures positively influence economic growth in Nigeria. Vedder and Gallaway (1998) concluded that incessant growth in government expenditures increase economic growth to a point, beyond which further expenditures results in economic decline and stagnation.

The path-through of government expenditures to growth according to Roux (1994), and Barro and Sala-i-Martin (1992) is its immediate effect on reduction of private sector production costs, increase in private sector investments and profitability. On the relationship between corporate investments and economic growth, Brons, de Groot and Nijkamp (1999) noted that private investments positively influence economic growth. Cooley and Hansen (1992) evaluated the size of distortions relating to varied fiscal and monetary policies with different combinations of taxes in the US and concluded that different taxes have varied effects on social welfare.

Research results by Cooray (2009) showed that government size measured by the value of expenditures is a major determinant of economic growth. Findings by Gunalp and Gur (2002) showed that government size positively affect economic growth. Studying the effect of public capital expenditures on economic growth of selected developing countries within a disaggregated analysis framework, Baldacci, Clements, Gupta and Cui (2008), and Bose, Haque and Osborn (2007) concluded that government expenditure size positively influences economic growth. From the study of Sub-Saharan countries in Africa using the panel data estimation technique, Yasin (2011) showed evidences that government expenditures positively impact economic growth. Studying economies in South-East Europe, Alexiou (2009) concluded that government expenditures positively influence economic growth. Similar results were obtained by Nwaka and Onifade (2015) from the study of African countries. Conclusions by Abu-Bader and Qarn (2003) showed that the nature of government spending is

another factor to be considered as expenditures on the military negatively affect economic growth. Guseh (1997) also showed that overall government expenditure has a negative effect on economic growth. Research results by Oteng-Abayie (2011) from the study of some West African countries showed no causal relationship between government spending and economic growth. Examining the impact of government expenditure on economic growth in Nigeria from 1981 to 2016, Gukat and Ogboru (2017) found no significant relationship. This result supports earlier findings of Abu and Abdulahi (2010), and Glomm and Ravikumar (1997).

The theoretical postulation by Keynes (1936) for government intervention in economic activities to boost economic growth underlies this study. Keynes (1936) argued that government intervention in economic activities through fiscal policy adjustments (deferred tax policies inclusive) redirects economic activities to achieve macro-economic goals. Income and social factor productivity disparity is checked with government economic intervention instead of by firms. Deferred taxes not seen as an obvious fiscal policy tool, leaves more funds in the hands of businesses in the short-term (an expansionary fiscal policy thrust); funds which would have been in the hands of government for direct expenditure with multiplier effects on the economy. Funds held by firms as deferred taxes are invested with attendant investment multiplier. Comparative analysis of government multiplier (KG) and investment multiplier (IG) identifies the expenditure with higher multiplier which should be the growth-stimulating path for government fiscal policy.

## **METHODOLOGY**

The population for this study is the listed firms in the manufacturing and industrial sectors of the Nigerian economy. These firms have large investments in plant, property and equipment resulting in high values in deferred tax liability. Eight firms purposively sampled for this study are listed manufacturing firms in the brewery,



pharmaceutical, beverages and building materials sub-sectors of the Nigerian Stock Exchange.

Variable description and model specification:

Secondary data on deferred tax liabilities of eight sampled listed firms were obtained from the annual reports of the sampled firms covering the period 2008 to 2018. Data on annual non-oil fiscal receipts for the federal government of Nigeria and real gross domestic product (RGDP) were obtained from the Statistical Bulletin 2018. These annual reports and Statistical Bulletin are certified documents of the sampled firms and the Central Bank of Nigeria and are thus valid and reliable.

The relationship between study variables: Deferred tax liabilities (CDFT), Non-oil revenues (ANOR), Adjusted non-oil revenue (ANOR) and Real gross domestic product (RGDP) are represented by the function:

$$RGDP = f\{CDFT, NOR, ANOR\}$$

Where RGDP= Real gross domestic problem

CDFT= Net Deferred tax liability

NOR= Non-oil revenue

ANOR= Adjusted non-oil revenue (NOR + CDFT)

The expected regression model for this study is:

$$RGDP = (\beta_0 + \beta_1 CDFT + \beta_2 NOR + \beta_3 ANOR + \mu_i$$

Data analysis technique/model justification:

The Ordinary Least Squares (OLS) model is used to estimate the long-run relationship between RGDP, and CDFT, NOR and ANOR. The Error Correction Model (ECM)

$$\Delta y_t = \beta_1 + \beta_2 \Delta X_t + \beta_3 EC_{t-1}$$

is used to estimate the short-run relationship between identified variables.

Data presentation and description

Secondary data on Deferred tax liabilities (CDFT), Non-oil revenues (ANOR), Adjusted non-oil revenue (ANOR) and Real gross domestic product (RGDP) for the study are shown on Table 1.

Table 1: Deferred tax liabilities of sampled firms, non-oil revenues, 1adjusted non-oil revenues and Real GDP for the period 2008-2018

Year	Aggregate deferred taxes of sampled firms (N'billion)	Total non -oil revenue, (N'billion)	Adjusted non -oil revenues (N'billion)	Real GDP (N'billion)
2008	12.424	4185.64	4198.064	69,810.02
2009	24.626	2847.32	2871.946	68,490.98
2010	25.035	3184.72	3209.755	67,931.24
2011	26.611	3431.03	3457.641	69,023.93
2012	34.053	3751.68	3785.733	67,152.79
2013	33.244	4031.83	4065.074	63,218.72
2014	21.341	3629.61	3650.951	59,929.89
2015	65.190	3553.54	3618.730	57,511.04
2016	43.572	3089.18	3132.752	54,612.26
2017	145.874	2642.98	2788.854	49,856.10
2018	111.053	3193.44	3304.493	46,012.50
Total	543.025	37,540.97	38,083.993	673, 549.47

Source: Annual Reports of sampled firms (2008-2018) and Statistical Bulletin, 2018

From Table1, deferred taxes increased from N12.424 billion in 2008 to N111. 025 in 2018 totalling N543.025 billion within the study period. This shows the yearly and cumulative distortions to fiscal revenue inflows to the Federal Government. Non-oil revenues increased from N4185.64 billion in 2008 to N3193.44 billion in 2018. Within the study period, real GDP declined from N69,810.02 billion to N46,012.50billion (Table 1).

Data analysis

Unit root test:

To test for the stationarity of the variables, we conduct the Augmented Dickey Fuller (ADF) test. The ADF result on Table 1 shows that the variables are stationary.

Table 2: Unit root result

Variable	ADF statistic	Coefficient	Probability
RGDP(-1)	2.476046	0.166999	0.9997
CDFT(-1)	-2.052497	-0.774550	0.2636
NOR(-1)	-2.711841	-0.794374	0.1054
ANOR(-1)	-2.612032	-0.769922	0.1220

Granger Causality test:

The Granger Causality result shows that Deferred tax liability (CDFT) Granger causes changes in RGDP with p-value of 0.4355 (Table 3) at  $\alpha=0.05$ . Further results show that Deferred tax liability (CDFT) Granger causes changes in Adjusted non-oil revenue (ANOR) with p-value of 0.4690 (Table 4) at  $\alpha=0.05$ .

Table 3: Pairwise Granger Causality Test 1

Sample: 2008 2018

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
RGDP does not Granger Cause CDFT	9	7.50996	0.0442
CDFT does not Granger Cause RGDP		1.03054	0.4355

**Table 4: Pairwise Granger Causality Test 2**

Sample: 2008 2018  
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
ANOR does not Granger Cause CDFT	9	0.11680	0.8927
CDFT does not Granger Cause ANOR		0.92028	0.4690

Regression result:

Analysing the data on Table 1 using the Ordinary Least Squares (OLS) gives the result on Table 5.

**Table 5: Regression Results**

Dependent Variable: RGDP  
Method: Least Squares  
Sample: 2008 2018  
Included observations: 11

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	33316.37	15965.66	2.086752	0.0704
ANOR	6.018270	4.737103	1.270454	0.2396
CDFT	167.3558	96.74525	1.729861	0.1219
NOR				
	6.018262	4.737105	1.270452	0.2396
R-squared	0.433777	Mean dependent var	61231.77	
Adjusted R-squared	0.292221	S.D. dependent var	8314.315	
S.E. of regression	6994.801	Akaike info criterion	20.77072	
Sum squared resid	3.91E+08	Schwarz criterion	20.87924	
Log likelihood	-111.2390	Hannan-Quinn criter.	20.70232	
F-statistic	3.064349	Durbin-Watson stat	1.875093	
Prob(F-statistic)	0.102790			

The resultant regression from Table 5 is:

$$RGDP = 33316.37 + 6.018ANOR + 6.108NOR + 167.3558CDFT + \mu_i$$

Error Correction model (ECM) result:

To determine the short-run relationship between Deferred tax liabilities (CDFT), Adjusted non-oil revenue (ANOR) and Real GDP (RGDP), we conduct the Error Correction analysis using the Error Correction Model (ECM). The ECM coefficient of 0.075562 (Table 6) indicates that 7.56% of the previous period's errors in the next period.

**Table 6: Error Correction Result**

Dependent Variable: D(RGDP)  
Method: Least Squares  
Date: 04/07/20 Time: 16:03  
Sample (adjusted): 2009 2018  
Included observations: 10 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-3733.027	1420.323	-2.628294	0.0391
D(ANOR)	-0.092703	1.065377	-0.087014	0.9335
CDFT	29.31290	30.67140	0.955708	0.3761
ECM(-1)	0.075562	0.125355	0.602785	0.5687
R-squared	0.347336	Mean dependent var	-2379.752	
Adjusted R-squared	0.021004	S.D. dependent var	1765.645	
S.E. of regression	1747.003	Akaike info criterion	18.05837	
Sum squared resid	18312119	Schwarz criterion	18.17940	
Log likelihood	-86.29183	Hannan-Quinn criter.	17.92559	
F-statistic	1.064365	Durbin-Watson stat	1.964392	
Prob(F-statistic)	0.431398			

Serial Correlation LM test:

Conducting the Serial Correlation LM using the Breusch-Godfrey Serial Correlation model gives an Observed R<sup>2</sup> (Obs\* R Squared) value of 4.92929 with p-value of 0.0850 (Table 7) indicating that there exists no serial correlation.

**Table 7: Breusch-Godfrey Serial Correlation LM result**

F-statistic	2.435945	Prob. F(2,6)	0.1681
Obs*R-squared	4.929298	Prob. Chi-Square(2)	0.0850

Heteroskedasticity test:

The heteroskedasticity test is conducted using the Breusch-Pagan-Godfrey equation. The Observed R<sup>2</sup> (Obs\* R Squared) value of 1.165772 with p-value of 0.5583 (Table 8) indicates that the variance in the residual is equal i.e.  $\sigma^2$  is constant.

**Table 8: Heteroskedasticity Test: Breusch-Pagan-Godfrey result**

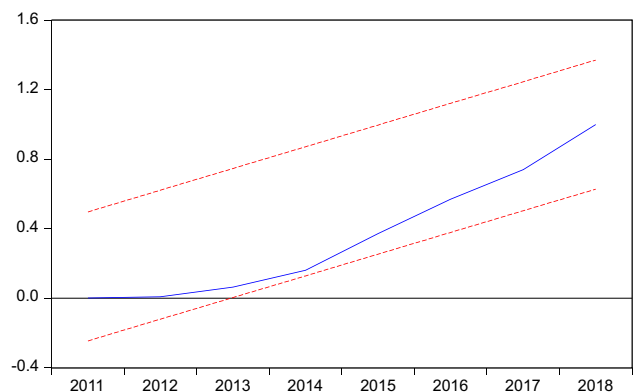
F-statistic	0.474169	Prob. F(2,8)	0.6388
Obs*R-squared	1.165772	Prob. Chi-Square(2)	0.5583
Scaled explained SS	0.603901	Prob. Chi-Square(2)	0.7394

Residual Diagnostic test:

The Stability Diagnostics test is conducted using the recursive estimates. The CUSUM Squares result (Fig 2) shows that the variance of the model is stable.

Figure 2: CUSUM Squares result

Figure 2: CUSUM Squares result



— CUSUM of Squares — 5% Significance

Research results and policy implications of findings

The resultant regression equation (Table 5) shows

that a positive relationship exists between Deferred tax liabilities of listed firms in Nigeria and Real GDP during the study period. The result implies that deferred tax liabilities of listed firms in Nigeria are invested by the firms with spiral positive effects on production capacity expansion, employment, income growth, consumption and real GDP growth. The coefficient of 6.108262 for Adjusted non-oil revenue (ANOR) to RGDP and 6.108262 for non-oil revenue (NOR) to the Federal Government and RGDP implies that whether the deferred taxes were paid to the government or held in the firms as deferred taxes, no difference occurs to Nigeria's RGDP. This may be attributable to the near nil difference between Government multiplier (KG) of 2.76 and Investment multiplier (KI) of 2.77 (see the appendix). From the existence of this non-differential effects and existence of a significant coefficient with deferred tax liabilities not paid to government in the immediate term instead of to government, it is obvious that deferred taxes benefit the Nigerian economy in the immediate term. Thus, private sector investments from deferred taxes seems economically beneficial to the Nigerian economy instead it being paid to the government.

The Error Correction Model (ECM) coefficient of 0.075562 shows that 7.5562% of errors in the immediate past period are corrected in the next period. The Granger causality result shows that deferred taxes cause changes in Nigeria's RGDP and the adjusted non-oil revenues (ANOR). Further result shows that deferred taxes negatively distort fiscal inflows to the federal government in the short-term and negatively affect fiscal expenditure obligations by the federal government of Nigeria. These effects are insignificant at 5% with p-values for NOR and ANOR at 0.2396 and 0.2396 respectively.

#### Conclusions

From this study, we conclude that:

- (i) Government expenditure multiplier (KG) and investment multipliers are equal at 2.77;

- (ii) Deferred tax liabilities create negative fiscal distortions to government expenditure plans;
- (iii) Deferred tax liabilities invested by the private sector positively influence real GDP;
- (iv) Government expenditures (inclusive of deferred taxes) positively influence real GDP;
- (v) The effect of deferred tax liabilities invested by the private sector has a 28-fold positive effect on real GDP compared with government expenditure from deferred tax receipts.

#### Recommendations

To improve Nigeria's real GDP from fiscal policies:

- (i) Fiscal policies aimed at increasing deferred tax liabilities should be designed and implemented by the government;
- (ii) Complimentary fiscal policies increasing investable funds in the private sector should be designed and implemented as private sector investments has a far higher positive effect on Nigeria's real GDP.

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